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EXAMINER

VU, THONG H

ART UNIT PAPER NUMBER

2142

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,225

Applicant(s)

KUMAR ET AL.

Examiner

Thong H. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-42 are pending.

Response to Arguments

2. Applicant's arguments filed 5/03/06 have been fully considered but they are not persuasive to overcome the prior art.

A. As per claim 1, Applicant argues the prior art fails to disclose "a primary state of session data configured for access by a plurality of application servers".

Examiner point out the prior art taught a network environment [Aridor, Wide area network, col 9 line 50], one or more Java server applications [Aridor, col 15 lines 53-60], and "a primary state of session data configured for access by a plurality of servers" or a configuration file determined the field of an application class [Aridor, a configuration file supplied by a programmer, col 18 lines 43-53] wherein the application were stored in server or master node of the cluster or WAN [Aridor, cluster, col 3 lines 22-64; WAN, col 9 line 50, Java server applications, col 15 lines 53-60].

B. As per claim 1, Applicant argues the prior art fails to disclose "compare a client state of the session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state"

Examiner point out the prior art taught the synchronized method or comparison process [Aridor, synchronized method, col 19 lines 18] using a synchronization mechanism to modify a cached field or state on all nodes or client machines [Aridor, synchronization mechanism modifying a cached field at any nodes, col 25 line 35-col 26 line 28] including the compare cached data or subset of attributes [Aridor, compare cached data, col 26 line 60-col 27 line 7] or benchmark measures the threads or state

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between client and server transactions wherein the benchmark of machine state was well-known in Java server benchmarks [Aridor, Java server benchmarks with benchmark measure the throughput or transaction, col 29 lines 16-31].

C. As per claim 1, Applicant argues the prior art fails to disclose "synchronize the primary state (i.e. a first set of data or master set) with the client state (i.e. a second set of data or replicas set)"

Examiner point out the prior art taught the synchronized method or comparison process [Aridor, synchronized method, col 19 lines 18] using a synchronization mechanism to modify a cached field or state on all nodes or client machines [Aridor, synchronization mechanism modifying a cached field at any nodes, col 25 line 35-col 26 line 28]. It was clearly that the synchronized process included two set of data which could be server to server, server to client or client to client. The synchronized primary state or a synchronized information between server and client is not patentable.

D. As per claim 3, Applicant argues the prior art fails to disclose "perform binary differencing of binary representation of the client state and binary representation of benchmark of the client state".

Examiner point out the binary data or digital signal or binary signal is well-known in computer network art. The prior art taught a benchmark program finds the shortest or different route among set of cities [Aridor, the benchmark TSP, col 30 lines 45-51]. It was clear that a benchmark program compares the different of two set of binary data.

E. As per claim 4, Applicant argues the prior art fails to disclose “perform object graph differencing of an object graph representation of the client state and an object graph representation of benchmark of the client state”.

Examiner point out the prior art taught a benchmark program finds the shortest or different route among set of cities [Aridor, the benchmark TSP, col 30 lines 45-51]. It was clear that a benchmark program compares the difference of two sets of binary data or object graph data.

F. As per claim 5, Applicant argues the prior art fails to disclose “compare the tracked accessed attributes to a benchmark of the attributes of the client state to determine a subset of the tracked accessed attributes that have been modified in the client state; and synchronize the primary state with the client state according to the subset of the tracked accessed attributes”

Examiner point out the prior art taught compare data [Aridor, compared data, col 26 lines 66] including tracked attributes or tracked information [Aridor, track replicas or subset, col 13 lines 54-65], synchronization and modified data [Aridor, synchronized, modifying a cached field, col 26 lines 20].

Thus the rejection is sustained.

Claim Rejections - 35 USC § 112

3. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no definition of the primary state in specification. It was unclear what applicant means synchronize the primary state with client state. Examiner assumes the synchronize the two set of information between two nodes.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Aridor et al [Aridor, 6,618,737 B2].

4. As per claim 1, Aridor discloses A system, comprising:

a distributed store comprising a primary state of session data configured for access by a plurality of application servers [Aridor, Java server applications, col 15 lines 53-60], wherein the session data comprises a plurality of attributes [Aridor, a scenario with value of threads, col 21 lines 1-33; a predefine set of criteria, col 36 lines 40];

a first one of the application servers comprising a client state of the session data [Aridor, locally status, col 8 line 62-col col 9 line 36], wherein the application server is configured to provide access to the session data to processes executing within the application server;

wherein the system is configured to:

compare the client state to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state [Aridor, compare cached data, col 26 line 60-col 27 line 7; a set of micro benchmark, col 10 lines 39-55]; and

synchronize the primary state (i.e.: master copy) with the client state according to the subset of the attributes [Aridor, master object, col 4 lines 47-65; synchronization mechanism, col 25 lines 35-67].

5. As per claim 2, Aridor discloses the application server is configured to provide access to the session data for one or more client sessions of the system [Aridor, supporting access to remote objects, col 3 lines 50-64].

6. As per claim 3, Aridor discloses the system is further configured to perform binary differencing of a binary representation of the client state and a binary representation of the benchmark of the client state to locate the modified attributes [Aridor, 4-byte words, col 12 lines 14-21].

7. As per claim 4, Aridor discloses the system is further configured to perform object graph differencing of an object graph representation of the client state and an object graph representation of the benchmark of the client state [Aridor, two objects with different run-time behavior, col 4 line 1].

8. As per claim 5, Aridor discloses the first application server is configured to track accesses of the attributes of the client state, wherein the system is configured to: compare the tracked accessed attributes to a benchmark of the attributes of the client state to determine a subset of the tracked accessed attributes that have been modified in the client state; and synchronize the primary state with the client state according to the subset of the tracked accessed attributes [Aridor, tracking, monitoring, col 25 lines 48-63].

9. As per claim 6, Aridor discloses the first application server is further configured to track only mutable attributes [Aridor, mutability, mutable, col 16 line 65-col 17 line 6].

10. As per claim 7, Aridor discloses the first application server is further configured to track only mutable accesses of the attributes of the client state, wherein mutable accesses comprise write accesses of any of the attributes of the client state [Aridor, mutability, mutable, col 16 line 65-col 17 line 6].

11. As per claim 8, Aridor discloses the system is further configured to perform binary differencing of a binary representation of the tracked accessed attributes and a binary representation of the benchmark of the attributes of the client state to locate the modified tracked accessed attributes [Aridor, 4-byte words, col 12 lines 14-21].

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12. As per claim 9, Aridor discloses the system is further configured to perform object graph differencing of an object graph representation of the tracked accessed attributes and an object graph representation of the benchmark of the attributes of the client state to locate the modified tracked accessed attributes [Aridor, different instances, col 19 lines 40-et seq.].

13. Claims 10-42 contain the similar limitations set forth in claims 1-9. Therefore claims 10-42 are rejected for the same rationale set forth in claims 1-9.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 6:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Vu
Primary Examiner
Art Unit 2142

